

- from the rotary position sensor, and the linear position signal from the linear position sensor, wherein the at least one processor is configured to determine a discrepancy exists among the motor rotation signal, the rotation signal, and the linear position signal.
2. The syringe pump according to claim 1, wherein the rotary position sensor is operatively coupled to the motor.
 3. The syringe pump according to claim 1, wherein the rotary position sensor is operatively coupled to the motor.
 4. The syringe pump according to claim 1, wherein the at least one processor is further configured to continue an infusion treatment by ignoring an inoperative one of the integral motor rotation sensor, the rotary position sensor, and the linear position sensor.
 5. The syringe pump according to claim 1, wherein the rotary position sensor is a magnetic encoder sensor.
 6. The syringe pump according to claim 1, wherein the syringe pump is configured to communicate with a monitoring client.
 7. The syringe pump according to claim 1, wherein the sliding block assembly comprises:
 - a half-nut housing having a lead screw void configured to receive the lead screw;
 - a half nut disposed within the half-nut housing, the half nut having half-nut threads at an end adjacent to the lead screw void, the half nut is slideable between an engagement position whereby the half-nut threads engage with threads of the lead screw and a disengagement position whereby the half-nut threads are disengaged from the threads of the lead screw, wherein the half nut includes a half-nut cam-follower surface and a half nut slot; and
 - a barrel cam disposed within the half-nut housing and configured to engage with the half-nut cam-follower surface, the barrel cam includes a pin configured to fit within the half nut slot, wherein the barrel cam is configured to rotate between a first position and a second position to actuate the half nut between the engagement position and the disengagement position, respectively.
 8. The syringe pump according to claim 7, wherein the half-nut cam-follower surface is positioned adjacent to the barrel cam.
 9. The syringe pump according to claim 7, wherein the half-nut cam-follower surface is disposed near an opposite end of the half nut relative to the half-nut threads.
 10. The syringe pump according to claim 7, wherein the half nut further includes a half-nut slot plate defining the half nut slot.
 11. The syringe pump according to claim 10, wherein the half-nut slot plate extends away from the lead screw.
 12. The syringe pump according to claim 10, wherein the half-nut slot plate is disposed near an edge of the half-nut cam-follower surface such that the half-nut slot plate engages the half-nut cam-follower surface at a right angle.
 13. The syringe pump according to claim 12, wherein:
 - the barrel cam is disposed adjacent to the half-nut cam-follower surface,
 - the pin of the barrel cam is disposed on an end of the barrel cam, and
 - the pin of the barrel cam engages with the half nut slot of the half-nut slot plate as the barrel cam engages with the half-nut cam-follower surface.

14. The syringe pump according to claim 13, wherein rotation of the barrel cam to the second position engages with the half nut slot to pull the half nut toward the barrel cam and away from the lead screw.

15. The syringe pump according to claim 14, wherein the barrel cam includes a barrel cam shoulder cylindrically shaped and having a first radius.

16. The syringe pump according to claim 15, wherein the barrel cam has a second radius that is substantially coextensive with the first radius, wherein the barrel cam includes a barrel cam flat wherein the second radius is less than the first radius, wherein the barrel cam flat is positioned to allow the half nut to extend closer to a center axis of the barrel cam than the distance of the first radius when the half nut is pulled toward the barrel cam and the barrel cam rotates to the second position.

17. The syringe pump according to claim 16, wherein the barrel cam flat is configured to be flush against the half-nut cam-follower surface when the barrel cam is in the second position.

18. The syringe pump according to claim 17, wherein the half-nut housing includes a barrel cam void configured to be adjacent a barrel cam surface of the barrel cam so that the barrel cam freely rotates within the barrel cam void.

19. The syringe pump according to claim 7, wherein the half nut includes a rod bushing void positioned between the half-nut threads and the half-nut cam-follower surface.

20. The syringe pump according to claim 7, wherein the syringe pump communicates a speed of a plunger to a monitoring client.

21. The syringe pump according to claim 7, wherein the half-nut housing defines a half-nut housing groove configured to cooperate with a syringe pump assembly guide rail.

22. The syringe pump according to claim 7, further comprising a half-nut slot plate disposed near an edge of the half-nut cam-follower surface such that the half-nut slot plate engages the half-nut cam-follower surface at a right angle.

23. The syringe pump according to claim 7, wherein:

- the barrel cam is disposed adjacent to the half-nut cam-follower surface,

the pin of the barrel cam is disposed on an end of the barrel cam, and

the pin of the barrel cam engages with the half nut slot as the barrel cam engages with the half-nut cam-follower surface.

24. The syringe pump according to claim 7, wherein rotation of the barrel cam to the second position engages with the half nut slot to pull the half nut toward the barrel cam and away from the lead screw.

25. The syringe pump according to claim 7, wherein the barrel cam includes a cylindrically shaped barrel cam shoulder.

26. The syringe pump according to claim 7, wherein the barrel cam has a second radius that is substantially coextensive with a first radius, wherein the barrel cam includes a barrel cam flat wherein the second radius is less than the first radius, wherein the barrel cam flat is positioned to allow the half nut to extend closer to a center axis of the barrel cam than the distance of the first radius when the half nut is pulled toward the barrel cam as the barrel cam rotates to the second position.

27. The syringe pump according to claim 7, wherein the barrel cam includes a barrel cam flat configured to be flush